

REMARKS

The Examiner provisionally rejected claims 1 and 4 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over co-pending Application No. 10/323,503; rejected claims 2 and 3 under 35 U.S.C. § 112; rejected claims 1-7 under 35 U.S.C. § 102(e) as being anticipated by Tan et al. (US 6,812,688) ("Tan"). Applicants hereby voluntarily amend the specification; amend claims 1-3, 5, 9, and 13; cancel claim 7. Claims 1-6 and 8-14 remain in the case.

Voluntary Amendments to the Specification

Applicants hereby amend the specification to note that the present invention claims the benefit of U.S. Provisional Application No. 60/434,265. Applicants also amend the specification in order to correct a minor typographical error. That is, on page 15 "S1" is replaced with "T1." Applicants further amend the specification to correct various minor errors in order to more clearly define the present invention. That is, on pages 6, 9, and 13 the term "unit" is replaced with "device." No new matter has been added through these amendments.

Voluntary Amendments to Claims 5, 6, 9, and 13

In order to more clearly define the scope of the claimed subject matter, Applicants hereby amend claim 5 (replacing the word "energy" with "current") and claim 6 (removing the "current source" limitation, which is now contained in claim 5). Applicants also amend claims 9 and 13 in order to correct minor typographical errors. No new matter has been added through these amendments.

Provisional Rejection of Claims 1 and 4 for Obviousness-Type Double Patenting

The Examiner provisionally rejected claims 1 and 4 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over co-pending Application No. 10/323,503. In making this rejection final, the Examiner noted that although Applicants' November 1, 2005 correspondence indicated that a Terminal Disclaimer was included, it was in fact not sent. Applicants regret this clerical error. However, Applicants now recognize that due to the claimed benefit of Provisional Application No. 60/434,265 (filed Dec. 17, 2002) the present application is earlier than co-pending Application No. 10/323,503 (filed Dec. 18, 2002). Accordingly, co-pending Application No. 10/323,503 should properly be terminally disclaimed, not the present application. In view of the submission of the Terminal Disclaimer in co-pending Application No. 10/323,503, Applicants submit that the grounds for the rejection have been overcome, and respectfully request that the provisional obviousness-type double patenting rejection be withdrawn. A copy of the Terminal Disclaimer submitted in co-pending Application No. 10/323,503 is attached hereto.

Rejection of Claims 2 and 3 Under 35 U.S.C. § 112

The Examiner rejected claims 2 and 3 under 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In order to more clearly and precisely define the claimed subject matter, Applicants hereby amend claims 1-3. That is, the amended claims more clearly state that both the test and measurement instruments and the combining circuitry each contain transceivers. No new matter has been added through this amendment. Accordingly, Applicants submit that the grounds for the rejection have been overcome and request that the rejection of claims 2 and 3 under 35 U.S.C. § 112 be withdrawn.

Rejection of Claims 1-7 Under 35 U.S.C. § 102(e)

The Examiner rejected claims 1-7 under 35 U.S.C. § 102(e) as being anticipated by Tan. Applicants respectfully traverse the rejection.

Applicants' invention addresses the problem of triggering a *system* of multiple *test and measurement instruments*, e.g. oscilloscopes, logic analyzers, modules or cards in a backplane, or the like. In contradistinction, Tan teaches using a software phase locked-loop to recover timing information from an acquired data signal. Tan describes this as being performed by an oscilloscope having multiple channels; that is, a *test and measurement instrument* having multiple *acquisition units*. The Examiner equates Applicants' multiple *test and measurement instruments* with Tan's multiple *acquisition units*. Applicants submit that the Examiner is fundamentally misinterpreting the terms *test and measurement instrument* and *acquisition unit* as defined by Applicants and Tan.

First, let us clarify the definitions: *Test and measurement instruments* are widely commercially available. One such *test and measurement instrument* is a TDS6154C available from Tektronix, Inc. of Beaverton, Oregon. A TDS6154C is an oscilloscope with four analog input channels, each channel having an *acquisition unit* (comprising a decimator and acquisition memory) for acquiring the digitized data samples. Certainly, there is little difficulty in triggering these four channels simultaneously; in fact, that is the normal mode of operation. Similarly, another such *test and measurement instrument* is a TLA520x available from Tektronix, Inc. of Beaverton, Oregon. A TLA520x is a logic analyzer with up to 136 analog input channels, each channel having an *acquisition unit* (comprising a decimator and acquisition memory) for storing the digitized data samples. Certainly, there is little difficulty in triggering these 136 channels simultaneously, as again, that is the normal mode of operation. In contradistinction, Applicants' invention addresses triggering *both* the TDS6154C and TLA520x with a combined trigger derived from both *test and measurement instruments*.

Now, consider Applicants' language in light of this clarification. Applicants define an *acquisition unit* as circuitry comprising a decimator and acquisition memory for acquiring the digitized data samples. (page 4, lines 3-4) Applicants define *test and measurement instrument* to include oscilloscopes, logic analyzers, cards, subassemblies, modules or cards in a backplane. (page 2,

line 31 – page 3, line 4; page 4, lines 20-23). Applicants define *system* to be synonymous with “signal analysis system” and “data acquisition system.” (page 10, line 33; page 3, lines 5-10) Most instructively, Applicants claim “[a] *system* for triggering a *plurality of test and measurement instruments*” (claim 1, emphasis added) and “[a] *system*, comprising: a *plurality of signal acquisition devices*” (claim 4, emphasis added).

Applicants recognize that the specification uses a variety of terms to describe a *test and measurement instrument* including “test and measurement device,” “signal acquisition device,” “signal analysis device,” “signal measurement device,” “signal analysis instrument,” and “data acquisition device.” However, Applicants submit that one of ordinary skill in the art will recognize such terms as synonymous with *test and measurement instrument* when read in light of the context of the specification.

Next, consider Tan’s language in light of the clarification. Tan defines an *acquisition unit* as circuitry comprising a decimator and acquisition memory for acquiring the digitized data samples. (column 2, lines 63-65, and claims 1 and 6) Tan defines *test and measurement instrument* to be synonymous with “oscilloscope,” “signal acquisition system,” “test and measurement device,” “signal acquisition device,” and “signal analysis instrument” and to include such things as oscilloscopes and logic analyzers. (column 2, lines 32-34) Most instructively, Tan claims “[a]n *oscilloscope* comprising ... an *acquisition unit*.” (claims 1 and 6, emphasis added)

The Examiner correctly states that Tan discusses a *system*: “FIG. 1 depicts a high-level block diagram of a signal acquisition *system* according to an embodiment of the present invention. Specifically, the *system* 100 of FIG. 1...” (column 2, lines 47-49, emphasis added) However, Applicants urge the Examiner to read the remainder of the Tan’s sentence: “...the *system* 100 of FIG. 1 depicts portions of a *digital storage oscilloscope*...” (emphasis added) That is, Tan is describing *one* oscilloscope. Applicants submit that Tan’s usage of the term *system* is consistent with the ordinary, natural usage of the term, and that the Examiner’s reading of the term is too narrow. Consider that in ordinary language a “microprocessor” may be described as a “system” just as the motherboard to which it is soldered and the personal computer into which the motherboard is installed may also be described as “systems.” A careful reading of the context reveals that Tan’s *system* is a *test and measurement instrument* and Applicants’ *system* is a plurality of *test and measurement instruments*.

Accordingly, regarding claim 1, Tan does not disclose a plurality of test and measurement instruments (as the Examiner suggests) but rather a *single test and measurement instrument* 100 having multiple analog input channels (column 2, lines 49-55), each channel having an *acquisition unit* 120 for acquiring digitized samples. (column 2, lines 63-65) Signal T is not a “combined trigger signal” (as the Examiner suggests) but rather the output of the *test and measurement instrument*’s own conventional trigger circuit 140. (column 3, lines 39-43) Signals AS₁ and AS₂ are not “trigger enable signals” (as the Examiner suggests) but rather acquired sample streams. (column 3, lines 1-2)

Accordingly, combining processing and display controller 130 and trigger circuit 140 does not (as the Examiner suggests) produce trigger signal T. In fact, trigger circuit 140 derives T from either an external trigger input EXT TRIG, analog input signals DATA1 or DATA2, or a clock recovered from either, as is readily apparent from Figure 1. Furthermore, TIE function 132, Eye Function 134, Mask Function 136, and PLL function 138 are not transceivers, i.e. *hardware* circuitry which both transmits and receives electronic signals (as the Examiner suggests) but rather, they are testing functions, i.e. *software* mathematical algorithms. (column 3, lines 13-23 and column 6, 22-49)

Accordingly, Tan does not teach, show, or remotely suggest:

“A system for triggering a plurality of test and measurement instruments substantially simultaneously, comprising:
 a first test and measurement instrument having an input for receiving a signal under test and a transceiver for developing a trigger enable signal and receiving a combined trigger signal;
 a second test and measurement instrument having an input for receiving a signal under test and a transceiver for developing a trigger enable signal and receiving a combined trigger signal; and
 circuitry for logically combining said trigger enable signals of said first and second test and measurement instruments to generate said combined trigger signal, the circuitry for combining having a first and second transceivers for receiving said trigger enable signals and transmitting said combined trigger signal;
 wherein each of said test and measurement instruments is coupled to said circuitry for combining via a cable, said trigger enable signal and said combined trigger signal being conveyed in mutually opposite directions through said cable; and
 said first and second test and measurement instruments acquire data samples of said signals under test in response to said combined trigger signal.”

Applicants therefore submit that Tan does not anticipate claim 1 and respectfully request that the rejection of claim 1 under 35 U.S.C. § 102(e) be withdrawn.

Claim 2 depends from independent claim 1 and is patentable for that reason alone as well as being patentable in its own right. In addition to the clarifications discussed above, Applicants further reiterate that TIE function 132, Eye Function 134, Mask Function 136, and PLL function 138 are not variable impedance devices, e.g. *hardware* transistors (as the Examiner suggests) but *software* testing functions, i.e. algorithms. Furthermore, input unit 160 is *not* a constant current source (as the Examiner insists) but rather a mouse, keyboard, or the like. (Column 3, lines 31-33) A constant current source is “[an electronic circuit] that maintains a constant current through the external circuit, regardless of load resistance or applied voltage.” (Paul Horowitz et al., “The Art of Electronics” (1980) page 9. See also Ronald J. Tocci, “Introduction to Electric Circuit Analysis” (1974) page 272.) Applicants are frankly puzzled by the Examiner’s insistence that a constant current source is somehow equivalent to a mouse or keyboard. Specifically, the Examiner states that “Tan et al disclose said transceivers (132, 134, 136 and 138) comprise ... a constant current source (input unit 160).” Applicants submit that no such disclosure appears anywhere in Tan. If the Examiner wishes to maintain this position, he is invited to produce evidence to support the position that an input device is a constant current source.

Accordingly, Tan does not teach, show, or remotely suggest:

“The system of claim 1, wherein said transceivers comprise:
 a series combination of a variable impedance device, a switch and a constant current source; wherein:

a junction of said variable impedance device and said switch is adapted to transmit said trigger enable signal.”

Applicants therefore submit that Tan does not anticipate claim 2 and respectfully request that the rejection of claim 2 under 35 U.S.C. § 102(e) be withdrawn.

Claim 3 depends from dependent claim 2 and is patentable for that reason alone, as well as being patentable in its own right in light of the clarifications discussed above. That is, Tan does not receive a combined trigger signal.

Accordingly, Tan does not teach, show, or remotely suggest:

“The system of claim 2, wherein an output terminal of said variable impedance device is monitored to receive said combined trigger signal.”

Applicants therefore submit that Tan does not anticipate claim 3 and respectfully request that the rejection of claim 3 under 35 U.S.C. § 102(e) be withdrawn.

Regarding claim 4, the Examiner maintains the position that Tan’s acquisition units comprise event decoders. To support this assertion, the Examiner cites column 2, lines 63-65 and column 4, lines 7-9: “The first acquisition unit 120₁ comprises, illustratively, at least one decimator as well as supporting acquisition memory,” and “[t]he second acquisition unit 120₂ comprises, illustratively, at least one decimator as well as supporting acquisition memory.” Applicants wholeheartedly agree that the quoted text agrees with both Applicants’ and Tan’s definition of the term “acquisition unit.” However, the text does not make any reference to an “event decoder” as Applicants define it: An event decoder “processes [input signals] according to a combinational and/or sequential logic function to determine whether a predefined triggering condition exists.” (page 5, lines 5-11) Furthermore, hardware phase-locked-loop 144 is not a plurality of transceivers (as the Examiner suggests) but a hardware phase-locked loop; that is, “an oscillator whose frequency is locked onto some frequency component of an input signal.” (Dan Wolaver, “Phase-Locked Loop Circuit Design” (1991) page 1)

For these reasons as well as the clarifications discussed above, Applicants submit that Tan does not teach, show, or remotely suggest:

“A system, comprising:

a plurality of signal acquisition devices, each of said signal acquisition devices comprising an event decoder, for monitoring at least one respective input signal to determine whether a logical triggering event has occurred, and a transceiver, for transmitting an indicium of the occurrence of said logical triggering event and for receiving a trigger signal; and

a trigger controller, comprising a plurality of transceivers operative to receive said logical triggering event indicium from each of said plurality of said signal acquisition devices, transmit said trigger signal, and a logical processing device for combining said logical triggering event indicia to produce therefrom said trigger signal.”

Applicants therefore submit that Tan does not anticipate claim 4 and respectfully request that the rejection of claim 4 under 35 U.S.C. § 102(e) be withdrawn.

Claim 5 depends from independent claim 4 and is patentable for that reason alone as well as being patentable in its own right in light of the clarifications discussed above. That is, Tan does not describe transceivers comprising a variable impedance device, a switch, and a constant current source,

nor does Tan transmit an indication of a combined trigger signal. Accordingly, Tan does not teach, show, or remotely suggest:

“The system of claim 4, wherein said transceivers comprise:
a series combination of a variable impedance device, a switch and a constant current source; wherein
a junction of said variable impedance device and said switch is adapted to transmit said indicium of the
occurrence of said logical event.”

Applicants therefore submit that Tan does not anticipate claim 5 and respectfully request that the rejection of claim 5 under 35 U.S.C. § 102(e) be withdrawn.

Claim 6 depends from independent claim 5 and is patentable for that reason alone as well as being patentable in its own right in light of the clarifications discussed above. That is, Tan does not monitor a junction of a variable impedance device and a switch to receive a combined trigger signal. Accordingly, Tan does not teach, show, or remotely suggest:

“The system of claim 5, wherein:
an output terminal of said variable impedance device is monitored to receive said trigger signal.”

Applicants therefore submit that Tan does not anticipate claim 6 and respectfully request that the rejection of claim 6 under 35 U.S.C. § 102(e) be withdrawn.

With regard to claim 7, Applicants submit that the Examiner's rejection is moot in light of Applicants' cancellation of claim 7.

Submission of Office Action and Response in Serial No.10/323,503

In compliance with *Dayco Products Inc.*, Applicants hereby submit a copy of the Office Action and response in related application serial no. 10/323,503.

Conclusion

In view of the foregoing remarks, allowance of claims 1-6 and 8-14 is urged, and such action and the issuance of this case are requested.

Respectfully submitted,

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EXAMINER

NGHIEM, MICHAEL P

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Please find below and/or attached an Office communication concerning this application or proceeding.

★ RE 4/17/06

Office Action Summary

Application No.

10/323,503

Applicant(s)

TRAN ET AL.

Examiner

Michael P. Nghiem

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 14 and 16-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 14 and 16-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Amendment filed on November 3, 2006 has been acknowledged.

Withdrawal of Allowability

The indicated allowability of claims 1-10, 15 (cancelled), 16-18, 21, and 22 is withdrawn in view of the newly discovered reference(s) to Tran et al. (US 2004/0124848). Rejections based on the newly cited reference(s) follow.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321 may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 4, 7-9, 14, and 22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 4, 8, 9, and 13 of copending Application No. 10/734,448 (Tran et al.). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed invention of Tran et al. anticipates the instant claimed invention as follow:

“A system and method (c1, lines 1-2; c4) for triggering a plurality of test and measurement instruments substantially simultaneously, comprising:

- a first test and measurement instrument having an input for receiving a first signal under test, an output for developing a first trigger enable signal, and a first external trigger input (c1, lines 3-6; c4, lines 2-8);
- a second test and measurement instrument having an input for receiving a second signal under test, an output for developing a second trigger enable signal, and a second external trigger input (c1, lines 7-10; c4, lines 2-8);
- circuitry for logically combining said first and second trigger enable signals to generate a combined trigger signal (c1, lines 11-13; c4, lines 9-13; c14, lines 2-6);
- said combined trigger signal being applied to the first and second external trigger inputs (c1, lines 20-22; c4, lines 6-8; c14, lines 2-6);
- said first and second test and measurement instruments acquiring data samples of said first and second signals under test in response to said combined trigger signal (c1, lines 20-22; c4, lines 6-8);

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- each device receives the respective signal under test as a plurality of signals under test (c9), said plurality of signals under test being acquired in response to said combined trigger signal (c9);
- an event decoder (c4, lines 3-6; c8, line 2) for receiving an input signal and generating therefrom a logical event indicative signal (c8, lines 2-3);
- said apparatus is used within each of a plurality of signal acquisition devices disposed within a computing device (c13, lines 2-4), each of said plurality of signal acquisition devices producing a respective logical event indicative signal and acquiring respective data samples in response to said trigger signal (c9, lines 2-4)."

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-10, 14, and 16-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Tran et al. (US 2004/0124848).

Regarding claims 1 and 4, Tran et al. discloses a system and method (100) for triggering a plurality of test and measurement instruments (110's) substantially simultaneously (Fig. 1), comprising:

- a first test and measurement instrument (110_1) having an input (input of 110_1 receiving CH1-4) for receiving a first signal under test (CH1-4), an output (output of 110_1) for developing a first trigger enable signal (TE_1), and a first external trigger input (input of External Trigger Controller receiving TE_1);
- a second test and measurement instrument (110_2) having an input (input of 110_2 receiving CH5-8) for receiving a second signal under test (CH5-8), an output (output of 110_2) for developing a second trigger enable signal (TE_2), and a second external trigger input (input of External Trigger Controller receiving TE_1) and
- circuitry (External Trigger Controller) for logically combining said first and second trigger enable signals to generate a combined trigger signal (TC, Fig. 1);
- said combined trigger signal being applied to the first and second external trigger inputs (Fig. 1); and
- said first and second test and measurement instruments acquiring data samples of said first and second signals under test in response to said combined trigger signal (Fig. 1).

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Regarding claims 2 and 10, Tran et al. discloses that each of said first and second test and measurement instruments is one of an oscilloscope and a logic analyzer (Scopes, Fig. 1).

Regarding claims 3 and 5, Tran et al. discloses that each trigger enable signal is indicative of one of a decoding of the logic state of said corresponding signal under test and a detection of an analog condition of said corresponding signal under test (Fig. 1).

Regarding claims 6 and 17, Tran et al. discloses that each trigger enable signal produced by the respective acquisition device is only asserted when the device is ready to acquire the respective signal under test (paragraph 0029, lines 1-5).

Regarding claim 7, Tran et al. discloses at least one of said acquisition devices logically combines said combined triggering signal with a respective triggering signal to control the acquisition of the respective signal under test (Fig. 1), said respective triggering signal being a logical event indicative signal (TC to 117) generated using said respective signal under test (Fig. 1).

Regarding claims 8 and 9, Tran et al. discloses that each device receives the respective signal under test as a plurality of signals under test (e.g. CH1-4), said plurality of signals under test being acquired in response to said combined trigger signal (Fig. 1).

Regarding claim 9, Tran et al. further discloses that each of said plurality of signals under test being acquired in a synchronized manner in response to said combined trigger signal and the respective logical event indicative signal (Fig. 1).

Regarding claim 14, Tran et al. discloses an apparatus comprising:

- an event decoder (111) for receiving an input signal and generating therefrom a logical event indicative signal (TE_1, Fig. 1);
- an acquisition unit (113) for acquiring at least a portion of said input signal in response to a trigger signal (T);
- said trigger signal being generated in response to the occurrence of said logical event indicative signal and an external trigger signal (TC, Fig. 1); and
- a trigger controller (External Trigger Controller) for combining said logical event indicative signal (TE_1) with another logical event indicative signal (TE_2) from another device (SCOPE_2) to produce therefrom said external trigger signal (TC).

Regarding claims 16 and 18, Tran et al. discloses:

- said apparatus is used within each of a plurality of signal acquisition devices (Fig. 1);
- each of said signal acquisition devices receiving a respective input signal (e.g. CH1-4) and generating therefrom a respective logical event indicative signal (signal from 111);
- each of said signal acquisition devices acquiring a portion of its respective input

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signal in response to a respective trigger signal (T), said respective trigger signal generated in response to the occurrence of said respective logic event and said external trigger signal (TC);

- said external trigger signal generated using the respective logical event indicative signals (TE_1, TE_2) provided by at least two of said signal acquisition devices (SCOPE_1, SCOPE_2).

Regarding claim 19, Tran et al. discloses that the signal acquisition device includes a display device (114) for displaying at least one respective input channel signal (Fig. 1).

Regarding claim 20, Tran et al. discloses:

- said event decoder comprises a first event decoder (111) and a second event decoder (112);
- said first event decoder generating a first logical event indicative signal (Fig. 4) for use by an external trigger controller (External Trigger Control) in response to the occurrence of a corresponding logical event in said input signal (Fig. 4);
- said second event decoder generating a second logical event indicative signal (Fig. 4) for use by said acquisition device in response to the occurrence of the corresponding logical event in said input signal and said external trigger signal (Fig. 4).

Regarding claim 21, Tran et al. discloses a trigger logic unit (117) for synchronizing the trigger signal applied to the acquisition unit with said external trigger signal (TC, Fig. 4).

Regarding claim 22, Tran et al. discloses that said apparatus is used within each of a plurality of signal acquisition devices disposed within a computing device (100, 400), each of said plurality of signal acquisition devices producing a respective logical event indicative signal and acquiring respective data samples in response to said trigger signal (Figs. 1, 4).

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

It is noted that the Office Action and Response in Serial No. 10/734,448 have not been received.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P Nghiem whose telephone number is (571) 272-2277. The examiner can normally be reached on M-H.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2863

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

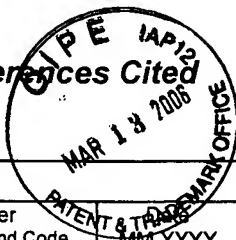


MICHAEL NGHIEM
PRIMARY EXAMINER

Michael Nghiem

January 16, 2006

Notice of References Cited



Application/Control No.

10/323,503

Applicant(s)/Patent Under
Reexamination
TRAN ET AL.

Examiner

Michael P. Nghiem

Art Unit

2863

Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2004/0124848	07-2004	Tran et al.	324/543
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

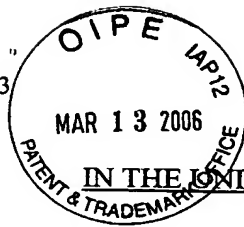
*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
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NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
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*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

10/323,503



COPY

7283-US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Que Thuy Tran and John C. DeLacy
Serial No.: 10/323,503
Filed: 18 December 2002
For: METHOD AND APPARATUS PROVIDING MULTIPLE CHANNEL MULTIPLE
INSTRUMENT TRIGGERING
Examiner: Michael Nghiem
Art Unit: 2863

Response to Office Action

In Accordance With 37 C.F.R. § 1.111(a)

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the outstanding Office Action dated January 16, 2006 for which a shortened statutory period of three (3) months was set in which to reply, please reconsider the claims of the above-identified application in light of the accompanying remarks.

Applicants hereby submit a Terminal Disclaimer in accordance with 37 C.F.R. § 1.321(c). Please charge the one hundred thirty dollar (\$130) fee in accordance with 37 C.F.R. § 1.20(d) to Deposit Account 20-0352.

No additional fee is believed due. However, if an additional fee is due please charge that fee to Deposit Account 20-0352.

REMARKS

The Examiner provisionally rejected claims 1, 4, 7-9, and 22 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over co-pending Application No. 10/734,448; rejected claims 1-10, 14, and 16-22 under 35 U.S.C. § 102(e) as being anticipated by co-pending Application No. 10/734,448. Claims 1-10, 14, and 16-22 remain in the case.

Provisional Rejection of Claims 1, 4, 7-9, and 22 for Obviousness-Type Double Patenting

The Examiner provisionally rejected claims 1, 4, 7-9, and 22 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over co-pending Application No. 10/734,448. As the Examiner correctly noted, Applicants' November 1, 2005 correspondence in regard to co-pending Application No. 10/734,448 indicated that a Terminal Disclaimer was included, but it was in fact not sent. Applicants regret this clerical error. However, Applicants now recognize that the present application should properly be terminally disclaimed (not co-pending Application No. 10/734,448) because co-pending Application No. 10/734,448 (which claims the benefit of Provisional Application No. 60/434,265 filed Dec. 17, 2002) is earlier than the present application (filed Dec. 18, 2002).

Accordingly, Applicants hereby submit a Terminal Disclaimer for the present application in accordance with 37 C.F.R. § 1.321(c). Applicants submit that co-pending Application No. 10/734,448 is commonly owned with the present application by virtue of an Assignment Declaration in each application assigning all right title and interest in the inventions to Tektronix, Inc. The Assignment Declaration in each application will be submitted for recording when a Notice of Allowance is received. Applicants submit that the grounds for the rejection have been overcome, and respectfully request that the provisional rejection be withdrawn.

Rejection of Claims 1-10, 14, and 16-22 Under 35 U.S.C. § 102(e)

The Examiner rejected claims 1-10, 14, and 16-22 under 35 U.S.C. § 102(e) as being anticipated by co-pending Application No. 10/734,448. Applicants note that the Examiner has already made this rejection (in an Office Action dated February 25, 2005) and that in response Applicants have already submitted a Declaration in accordance with 37 C.F.R. § 1.132 (dated July 29, 2005) establishing that the present invention was made before the filing date of co-pending Application No. 10/734,448. Applicants reiterate that 35 U.S.C. § 102(e) requires that "[a] person shall be entitled to a patent unless— ... the invention was described in ... an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent ..." Co-pending Application No. 10/734,448 was not "described in ... an application for patent, published under section 122(b), by another filed in the United States *before the invention by the applicant for patent...*" (emphasis added) and is therefore not proper prior art against the present invention.

Accordingly, Applicants submit that the grounds for the rejection have been overcome and respectfully request that the rejection of claims 1-10, 14, and 16-22 under 35 U.S.C. § 102(e) be withdrawn.

Submission of Office Action and Response in Serial No.10/734,448

In compliance with *Dayco Products Inc.*, Applicants hereby submit a copy of the Office Action and response in related application serial no. 10/734,448.

Conclusion

In view of the foregoing remarks, allowance of claims 1-10, 14, and 16-22 is urged, and such action and the issuance of this case are requested.

Respectfully submitted,

Que Thuy Tran and John C. DeLacy

By: Thomas F. Lenihan

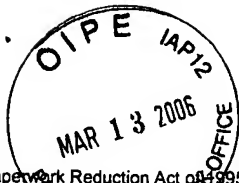
Thomas F. Lenihan

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9 March 2006
Tektronix, Inc.
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Beaverton, OR 97077



COPY

PTO/SB/25 (10-05)

Approved for use through 07/31/2006. OMB 0651-0031
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**TERMINAL DISCLAIMER TO OBVIATE A PROVISIONAL DOUBLE PATENTING
REJECTION OVER A PENDING "REFERENCE" APPLICATION**Docket Number (Optional)
7283-US

In re Application of: Que Thuy Tran and John C. DeLacy

Application No.: 10/323,503

Filed: 18 December 2002

For: METHOD AND APPARATUS PROVIDING MULTIPLE CHANNEL MULTIPLE INSTRUMENT TRIGGERING

The owner*, Tektronix, Inc., of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending **reference** Application Number 10/734,448, filed on 17 December 2002, as such term is defined in 35 U.S.C. 154 and 173, and as the term of any patent granted on said **reference** application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending **reference** application. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the **reference** application are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term as defined in 35 U.S.C. 154 and 173 of any patent granted on said **reference** application, "as the term of any patent granted on said **reference** application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending **reference** application," in the event that: any such patent: granted on the pending **reference** application: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer filed prior to its grant.

Check either box 1 or 2 below, if appropriate.

1. ☒ For submissions on behalf of a business/organization (e.g., corporation, partnership, university, government agency, etc.), the undersigned is empowered to act on behalf of the business/organization.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2. ☒ The undersigned is an attorney or agent of record. Reg. No. 32,152

Signature

9 March 2006

Date

Thomas F. Lenihan

Typed or printed name

(503) 627-7266

Telephone Number

- ☒ Terminal disclaimer fee under 37 CFR 1.20(d) is included.

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*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).
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This collection of information is required by 37 CFR 1.321. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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